STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Illinois Bell Telephone Company	**)**	
	)	
	)	**ICC Docket No. 02-0864**
Filing to Increase Unbundled Loop	**)**	
and Nonrecurring Rates	**)**	

SURREBUTTAL TESTIMONY

OF

TERRY L. MURRAY

ON BEHALF OF AT&T COMMUNICATIONS OF ILLINOIS, INC. AND WORLDCOM, INC. D/B/A MCI

AT&T/MCI JOINT EX. 2.2

February 20, 2004

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.

A. My name is Terry L. Murray. I am President of the consulting firm Murray & Cratty, LLC. My business address is 8627 Thors Bay Road, El Cerrito, CA 94530.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted direct testimony on May 6, 2003, and rebuttal testimony to the Staff of the Illinois Commerce Commission ("ICC" or "Commission") on January 20, 2004 on behalf of AT&T Communications of Illinois, Inc. ("AT&T") and WorldCom, Inc. d/b/a MCI ("MCI"). Attachment TLM-1 to my direct testimony described my qualifications and experience as they relate to this proceeding.

Q. WHAT IS THE PURPOSE OF YOUR CURRENT SURREBUTTAL TESTIMONY?

A. My surrebuttal testimony responds to the rebuttal testimony of SBC Illinois ("SBC") witness William E. Avera concerning the cost of capital appropriate for use in a forward-looking economic cost study of unbundled network elements ("UNEs") provided by SBC.

Q. PLEASE SUMMARIZE YOUR SURREBUTTAL TO SBC.

A. Dr. Avera's rebuttal testimony purports to demonstrate that my May 6, 2003 testimony presents an excessively low cost of capital estimate, viewed from the perspective of a number of "benchmarks" and other criteria that he identifies. In this testimony, I demonstrate that none of these benchmarks or criteria demonstrates any inadequacy in my estimate of the forward-looking cost of capital applicable to a UNE cost study.

Dr. Avera, of course, disagrees. He contends that my cost of capital estimate is far too low, especially in light of the guidance provided by the Federal Communications Commission ("FCC") in its *Triennial Review Order*, which elaborated on the cost of capital appropriate for a Total Element Long Run Incremental Cost ("TELRIC") study,[1] and the interpretation of the FCC's additional guidance on cost of capital in the FCC Wireline Competition Bureau's *Virginia Arbitration Order.*[2] I discussed these orders in my January 20, 2004 rebuttal to Staff and explained why my recommendation remains appropriate (or even conservatively high) even when one considers the FCC's "clarification" of the appropriate standards for the UNE cost of capital.

Dr. Avera's own recommendation is itself inconsistent with the guidance in the two orders that he cites, and relies on unsound applications of economic

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[1] *Report and Order and Order on Remand and Further Notice of Proposed Rulemaking*, In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers (CC Docket No. 01-338); Implementation of the Local Competition Provisions of the Telecommunications Act of 1996 (CC Docket No. 96-989); Deployment of Wireline Services Offering Advanced Telecommunications Capability (CC Docket No. 98-147), FCC No. 03-36, (rel. Aug. 21, 2003) (hereinafter, "*Triennial Review Order*").

[2] *Memorandum Opinion and Order*, In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc. and for Expedited Arbitration (CC Docket No. 00-218); In the Matter of Petition of AT&T Communications of Virginia Inc., Pursuant to Section 252 Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc. (CC Docket No. 00-251), DA 03-2738 (rel. August 29, 2003) (hereinafter "*Virginia Arbitration Order*").

and financial principles. His recommended cost of equity far exceeds the result that one would obtain through the most literal interpretation of the methodology adopted in the *Virginia Arbitration Order*, applied to current data, whereas my own recommendation is far more consistent with the updated result using that methodology. His recommended cost of debt does *not* appropriately reflect SBC's own estimates of the economic lives of the assets being financed in the UNE cost study, despite Dr. Avera's admission that matching debt maturities to economic lives is appropriate, whereas my recommended debt cost reflects the use of appropriate maturities. Finally, his proposed capital structure greatly exceeds a "reasonable target capital structure" for a UNE provider, which is the standard that even Dr. Avera agrees is applicable, whereas my proposed capital structure is consistent with what is known about incumbent local exchange carrier ("ILEC") target capital structures.

Dr. Avera would have the Commission believe otherwise, but his criticisms of my methodology and recommendation are as invalid as are his estimates of SBC's forward-looking cost of capital. I respond below to concerns Dr. Avera raises with respect to the overall reasonableness of my recommendation (in light of various "benchmarks" that he applies), as well as the specific techniques that I use to estimate the cost of equity, the cost of debt and the proportions of equity, long-term debt and short-term debt in SBC's forward-looking capital structure. My remainder of my surrebuttal testimony provides evidence and reasoning to support my conclusion that my 7.54% recommended weighted-average cost of capital is a conservatively high estimate of the forward-looking cost of capital appropriate for use in a UNE cost study for SBC.

II. DR. AVERA USES INAPPROPRIATE BENCHMARKS AND CRITERIA IN HIS ATTEMPT TO DEMONSTRATE THAT MY RECOMMENDED COST OF CAPITAL IS TOO LOW.

Q. APART FROM SPECIFIC METHODOLOGICAL ISSUES, WHAT BENCHMARKS OR OTHER CRITERIA DOES DR. AVERA CITE IN HIS REBUTTAL TESTIMONY AS "PROOF" THAT YOUR RECOMMENDED COST OF CAPITAL IS TOO LOW?

A. Dr. Avera cites a litany of benchmarks and criteria, including: (1) the authorized returns for electric and gas utilities; (2) the purported increase in the spread between government bond yields and yields for corporate securities; (3) alleged indicators of investors' perception of the risk of telecommunications firms such as SBC, such as statements in the *Value Line Investment Survey* and the downgrade of SBC's bonds; (4) the 11.25% federal authorized rate of return; (5) the cost of capital adopted in the *Virginia Arbitration Order*; (6) the apparent lack of "spread" between my recommended cost of equity and current yields on long-term debt; and (7) Staff's Capital Asset Pricing Model ("CAPM") result. I show below that none of these benchmarks or criteria, as applied by Dr. Avera, provides a legitimate basis for rejecting my recommendation.

A. <u>Authorized Returns for Regulated Electric and Gas Utilities Are Not an Appropriate Benchmark for the UNE Cost of Capital</u>

Q. DR. AVERA CLAIMS THAT YOU HAVE CALCULATED THE COST OF CAPITAL FOR SBC AS IF IT WERE A REGULATED UTILITY.[3] IS THIS A VALID CRITICISM OF YOUR METHODOLOGY AND RECOMMENDATION?

A. No. Dr. Avera has mischaracterized my testimony in a way that creates a straw man for him to rebut.

It is certainly true, as I have stated, that I estimated the weighted-average cost of capital using a variety of techniques – *e.g.*, discounted cash flow ("DCF") and CAPM estimates of the investor-required return on equity combined with debt costs based on the relative percentages of equity and debt in the capital structure – with which the Commission is familiar. The same could be said, at a very high level, of the general approach to estimating the weighted-average cost of capital used by Staff witness Mr. McNally[4] and Dr. Avera himself. Indeed, one authority that Dr. Avera cites in support of analyses he has performed is a 1994 book entitled *Regulatory Finance: Utilities' Cost of Capital*.[5] To criticize my approach as being like the one used to set the allowed rate of return for monopoly

[3] Avera Rebuttal at 35, A.40.

[4] To be sure, Dr. Avera attempts to paint Mr. McNally with the same brush (Avera Rebuttal at 4, A.7), even though Mr. McNally's specific applications of the financial modeling tools common to all of the quantitative analyses of cost of capital in this proceeding are in several respects different from mine.

[5] *See*, *for example*, Avera Rebuttal at 14, A.17. The full citation for this book is presented in footnote 16 to Dr. Avera's Rebuttal.

utilities is to criticize *all* of the cost of capital studies presented to the Commission in this proceeding. Thus, this criticism provides no basis on which the Commission can choose the "best" estimate.

When one looks in more detail at the specific applications of these widely used financial modeling methodologies, however, my approach to estimating the weighted-average cost of capital differs significantly from the typical application of the same methodologies in a traditional rate case setting. For example, I have calculated a forward-looking or expected future cost of debt, rather than relying (as would be the case in a rate case) on SBC's embedded debt cost. I also have estimated a target capital structure that attempts to replicate investors' expectations of SBC's future capitalization, rather than relying (again, as would be typical in a rate case) on SBC's current book value capital structure. Therefore, Dr. Avera's criticism does not represent a valid basis for the Commission to reject my recommendation.

Q. DR. AVERA FURTHER CRITICIZES YOUR RECOMMENDATION BECAUSE IT IS BELOW THE AUTHORIZED RETURNS FOR ELECTRIC AND GAS UTILITIES.[6] PLEASE RESPOND.

A. I find it curious, to say the least, that Dr. Avera first states that it would be improper to set the forward-looking cost of capital for UNE operations using the same approach as for a regulated utility, but then attempts to "benchmark" the

[6] Avera Rebuttal at 34, A.40, and 49-50, A.53.

reasonableness of my recommended cost of capital by referencing the authorized returns for regulated electric and gas utilities. The "benchmark" that Dr. Avera proposes is inappropriate. Dr. Avera implies, but does not prove, that the electric and gas utilities in question are less risky than the UNE line of business for SBC. He fails to note that electric and gas utilities face interfuel competition that is directly analogous to (but perhaps more pervasive than) the intermodal facilities-based competition for mass-market local telephone service. Moreover, gas utilities have long faced retail competition for their largest industrial customers, and face additional competition for smaller customers in at least some parts of the country. Electric "restructuring" and deregulation also have led to financial stress for at least some electric utilities. (For example, California's largest electric and gas utility, Pacific Gas & Electric, is in bankruptcy, and another electric giant, Southern California Edison, came close to bankruptcy in the recent past.) Therefore, it is far from clear that the authorized returns for electric and gas utilities reflect situations of lower risk than the UNE line of business for SBC. What is clear is that the Commission has too little information to draw any useful conclusion from the data that Dr. Avera cites.

B. All Relevant Interest Rate Indicators Support a Reduction in the UNE Cost of Capital

Q. DR. AVERA ALLEGES THAT YOUR DISCUSSION OF TRENDS IN GOVERNMENT BOND YIELDS IS IRRELEVANT TO THE DETERMINATION OF THE COST OF CAPITAL BECAUSE THERE HAS BEEN A "FLIGHT TO QUALITY" THAT HAS INCREASED THE

SPREAD BETWEEN GOVERNMENT AND CORPORATE BOND YIELDS.[7] PLEASE COMMENT.

A. The Commission should be aware of two things. First, my cost of capital recommendation does not rely solely or even heavily on interest rate trends in the market for government bonds, as Dr. Avera's rebuttal testimony seems to imply. The sole purpose of my discussion of interest rate trends for government bonds was to provide the Commission with some context for understanding why the cost of capital for SBC might have declined since the last Commission review of this UNE cost input. Second, even the trends in corporate bond yields support a reduction in the cost of capital relative to Dr. Avera's recommendation. For example, Dr. Avera proposes a 7.18% cost of long-term debt based on his cost of capital study using data from 1998-1999. But his own rebuttal testimony indicates that in November 2003, Moody's reported the average yield for single-A-rated corporate debt to be 6.18%,[8] fully 100 basis points lower than Dr. Avera's own recommended debt cost.

Q. ARE DECREASES IN GOVERNMENT BOND YIELDS IRRELEVANT TO THE DETERMINATION OF THE UNE COST OF CAPITAL?

A. No. Government bond yields are typically used as the "risk-free interest rate" in the Capital Asset Pricing Model ("CAPM"), a methodology that Dr. Avera, Mr.

[7] Avera Rebuttal at 36, A.41.

[8] *Id*. at 35-36, n. 53.

McNally and I have all used to estimate the cost of equity. In the standard application of the CAPM methodology, the investor-required return on equity varies directly with the risk-free interest rate: *i.e.*, every one basis point increase or decrease in the risk-free interest rate leads to a corresponding one basis point increase or decrease in the cost of equity.[9] Furthermore, although the cost of debt for companies such as SBC does not move in lock step with government bond yields, it does tend to move in the same general direction. Hence, it is reasonable to expect that decreases in interest rates will tend to decrease the cost of capital for SBC.

C. The UNE Cost of Capital Should Reflect Both Current Interest Rates and Investor Perceptions of Risk, as Measured in an Appropriate Quantitative (Rather than Qualitative) Study

Q. COULD CHANGES IN INVESTOR PERCEPTIONS OF SBC'S RISK OFFSET THE EFFECTS OF THE DECLINE IN INTEREST RATES, AS DR. AVERA SUGGESTS[10]?

A. This is a conceptual possibility that can only be assessed empirically. I performed such an empirical assessment in my direct testimony by applying standard financial analysis techniques to what were then current data for the Regional Bell Operating Companies ("RBOCs"). In contrast, Dr. Avera relied on a string of

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[9] I discuss further below Dr. Avera's less-standard approach to the CAPM, in which the equity risk premium increases whenever interest rates decrease. Even in Dr. Avera's so-called "expectational" CAPM analysis, however, a decrease in the government bond rate leads to a decrease (albeit a smaller one) in the cost of equity.

[10] Avera Rebuttal at 37, A.41.

qualitative claims about the riskiness of the RBOCs to support the suggestion that his analysis of 1998-99 data somehow produced a "conservatively low" estimate of the forward-looking cost of capital for SBC's UNE line of business. Notably, Dr. Avera failed to respond to this Commission's and the FCC's findings that quantitative models such as those used in my direct testimony capture all of the relevant qualitative risk variables that affect the cost of capital.[11] Instead, he attempts to rebut the reasonableness of my quantitative assessment of SBC's cost of capital by further citations to the kind of qualitative risk assessments that this Commission and the FCC have determined are already fully reflected, to the extent appropriate, in quantitative studies such as mine.

Q. DR. AVERA CITES *VALUE LINE* FOR THE PROPOSITION THAT INVESTORS' PERCEPTION OF THE RISKS ASSOCIATED WITH SBC'S UNE LINE OF BUSINESS HAVE INCREASED DRAMATICALLY.[12] DOES *VALUE LINE* ACTUALLY SUPPORT DR. AVERA'S CLAIM?

A. No. Dr. Avera chose to include a quotation from the October 3, 2003 edition of *Value Line*, even though he elsewhere cited statistics and estimates from the more recent January 2, 2004 edition of the same publication. The October 2003

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[11] Docket Nos. 96-0486/0569 (Consol.), *Second Interim Order*, February 17, 1998, p.19; FCC 98-222, *Notice Initiating a Prescription Proceeding and Notice of Proposed Rulemaking*, in CC Docket No. 98-166, In the Matter of Prescribing the Authorized Unitary Rate of Return for Interstate Services of Local Exchange Carriers, rel. October 5, 1998 (hereinafter, "*FCC Rate of Return Notice*"), at ¶ 5.

[12] Avera Rebuttal at 38, A. 42.

quotation misrepresents *Value Line*'s current assessment of SBC's prospects. According to the most recent *Value Line* review of SBC:

> **SBC Communications' core local telephone business appears to be bottoming out…** Access line losses have moderated lately, thanks to new customer winback and retention initiatives, and to the company's aggressive bundling strategy. And we think line trends will continue to improve in the near term now that SBC is free to offer long-distance service in all of its 13 in-region territories.[13]

Moreover, the January 2, 2004 edition of *Value Line* gives SBC an A+ rating for financial strength, providing a nice summary measure of SBC's financial risk. *Value Line* also gives SBC a 95 rating for earnings predictability, suggesting its operating (or business) risk is extremely low as well. These qualitative summary measures are consistent with my quantitative analysis, but inconsistent with Dr. Avera's subjective claims and selective (outdated) quotation.

Q. DR. AVERA ALSO MENTIONS THE DOWNGRADE OF SBC'S DEBT AS AN INDICATOR OF INCREASED RISK SINCE THE ICC LAST ADOPTED A UNE COST OF CAPITAL FOR SBC.[14] DID YOU IGNORE THE EFFECT OF THIS DOWNGRADE, AS DR. AVERA SUGGESTS?

A. Not at all. In my direct testimony, I not only acknowledged this downgrade, but I specifically quantified the effect on SBC's debt cost—pointing out that the spread between the AA- and A+ ratings (which was the limit of the downgrade in

[13] *Value Line Investment Survey*, January 2, 2004 (emphasis in original), provided courtesy of Alacra.

[14] Avera Rebuttal at 38, A.42.

question) was *de minimis* and that SBC was able to place $1 billion of debt on very favorable terms even after the downgrade.[15] The same bond issue is now publicly trading at a yield-to-maturity of between 4.578% and 4.696%.[16] I will discuss Dr. Avera's other criticisms of my long-term debt cost in the following section of my surrebuttal testimony.

Q. ARE YOU AWARE OF ANY OTHER RECENT ANNOUNCEMENT OF ANOTHER POSSIBLE DOWNGRADE IN SBC'S DEBT RATING?

A. Yes. I am aware that both Moody's and Fitch have placed SBC's bond rating on review for another possible downgrade. Their actions reflect concern about the potential for Cingular's acquisition of AT&T Wireless to increase SBC's debt burden.[17] (SBC Communications, Inc. has a 60% ownership share in Cingular.) Because this possible downgrade is the direct effect of actions that SBC has taken that are entirely unrelated to its provision of UNEs, it is not appropriate for the Commission to reflect this possible debt rating downgrade in the UNE cost of capital. Moreover, SBC itself told investors that it does *not* expect a ratings downgrade as a result of the AT&T's Wireless acquisition.[18]

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[15] Murray Direct at 36-37.

[16] These yields-to-maturity represent the range posted as of February 18, 2004, on www.bondpage.com.

[17] *See, for example*, Jessica Hall and Sinead Carew, "Cingular Wins AT&T Wireless for $41 Bln," Reuters News Service, February 17, 2004, at http://biz.yahoo.com/rb/040217/telecoms_attwireless_8.html.

[18] A slide attributed to Randall Stephenson, Senior Executive Vice President and Chief Financial Officer of SBC Communications, Inc., included as part of the supplemental documents for a February 17, 2004 webcast to investment analysts concerning the AT&T Wireless acquisition and summarizing the (continued)

Nonetheless, I have reviewed the most recent information available to me concerning the yields-to-maturity for the SBC companies' publicly traded debt. This information, which I obtained via the Internet as of February 18, 2004, does not support any increase in my recommended cost of debt. The weighted-average yield-to-maturity for *all* of the SBC companies' publicly traded debt is only 4.47%,[19] reflecting both the relatively short average remaining maturity of the outstanding debt and the willingness of investors to hold SBC's debt even at a fairly low yield. The *highest* yield-to-maturity for all of SBC's publicly traded debt is reported as 6.016%, which is for a bond issue of the former Pacific Bell maturing on February 15, 2026.[20] Given this current information about the yields that investors demand for SBC-specific levels of risk even in light of the acquisition of AT&T Wireless, my recommended 5.70% long-term debt cost for SBC appears to be conservatively high.

Q. YOU MENTIONED IN YOUR PREVIOUS ANSWER THAT THE POSSIBLE DOWNGRADE IS RELATED TO THE AT&T WIRELESS ACQUISITION. IS THERE ANY OTHER INDICATION THAT

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expected SBC financial impact states that the acquisition: "should have no impact on credit ratings." Slide 31 of Cingular/AT&T Wireless presentation "New Leadership for the U.S. Wireless Industry." This slide presentation is available on SBC's Web site at http://www.sbc.com/Investor/Financial/Earning_Info/docs/slide_c.pdf.

[19] I calculated the weighted-average yield-to-maturity for all SBC debt issuances with a maturity of greater than one year reported as of February 18, 2004, on www.bondpage.com. The calculation is presented in Attachment TLM-5.

[20] www.bondpage.com, February 18, 2004.

INVESTOR PERCEPTIONS OF SBC'S RISK MAY RELATE TO OPERATIONS OTHER THAN ITS LOCAL EXCHANGE AND/OR UNE LINES OF BUSINESS?

A. Yes. The most recent *Value Line* review of SBC indicates that:

> Moreover, we look for SBC's operating margin to contract further in the years ahead, as the new growth platforms, namely wireless (60% owned Cingular), DSL/data, and long distance, gain in importance. *These businesses are far less profitable than the company's local service operations.*[21]

I presume that Dr. Avera would give this information particularly heavy weight, given his complaint that my prior testimony did not cite *Value Line* concerning the relative risk of the UNE and local service lines of business as compared to other diversified operations of SBC.[22]

Also, in his concurrently filed rebuttal testimony, Dr. Lee L. Selwyn explains that the holding-company-level cost of capital for the RBOCs exceeds the cost of capital for those companies' local exchange operations (including their UNE lines of business) because diversification into riskier ventures such as wireless and broadband services has been the main driver of the increase in the RBOCs' "betas" (which measure the systematic risk that the RBOCs face, relative to the market as a whole). Dr. Selwyn's analysis supports the conclusion that use of holding-company-level data almost certainly overstates the cost of capital for SBC's UNE operations.

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[21] *Value Line Investment Survey*, January 2, 2004, provided courtesy of Alacra (emphasis supplied).

[22] Avera Rebuttal at 50, A.54.

Q. DR. AVERA ASSERTS THAT YOUR COST OF CAPITAL ANALYSIS UNDERSTATES THE APPROPRIATE UNE COST OF CAPITAL BECAUSE YOUR "ANALYSES AND CONCLUSIONS WERE INCORRECTLY BASED ON THE PRESUMPTION THAT ALTERNATIVES TO THE UNE SERVICES OF INCUMBENT LECS ARE LIMITED AND/OR UNECONOMIC."[23] IS DR. AVERA CORRECT?

A. No. As I stated in my prior answer, I do believe that the holding-company-level cost of capital for the RBOCs tends to overstate the cost of capital for their UNE operations. Nonetheless, as Dr. Avera is well aware, *I used the holding-company-level cost of capital and made no downward adjustment for the lesser risk associated with UNEs*. Therefore, to the extent that Dr. Avera is correct in interpreting the *Triennial Review Order* to require a cost of capital higher than that for the UNE operations of SBC and other RBOCs,[24] I have already satisfied that requirement. Moreover, *I satisfied the requirement in precisely the same manner as did Dr. Avera* because he also chose to base his recommendation on a holding-company-level analysis of data for the RBOCs, without any adjustment for what he claims to be the higher risk of UNEs, as compared to the holding-company operations. In his direct testimony, Dr. Avera stated:

> SBC's stock is a logical starting point to estimate the cost of equity for the SBC LECs, including Illinois. While some SBC subsidiaries may have risks that are higher or lower than the LECs,

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[23] Avera Rebuttal at 39, A.43; *see also id*. at 50-52, A.54.

[24] *Id*. at 39, A.43, citing to *Triennial Review Order*, ¶ 681.

> the diversified portfolio of SBC is likely to be of similar risk given the predominance of local telephone service and related activities in SBC's business.[25]

Although Dr. Avera's approach (use of unadjusted holding-company-level data) is the same as mine, his conclusion that the diversified portfolio of SBC is likely to be of similar risk to its local telephone operations is increasingly questionable, as Dr. Selwyn shows. Furthermore, if Cingular's acquisition of AT&T Wireless is approved, SBC itself has indicated that wireless operations would increase from 19% to 32% of its total revenues, based on the 2003 revenues for SBC and AT&T Wireless.[26] This change in the composition of SBC's overall revenues, in combination with the continued increase in its long-distance and DSL lines of business, indicates that investor opinions of SBC are no longer likely to reflect the "predominance of local telephone service and related activities in SBC's business."

D. <u>The 11.25% Federal Rate of Return Provides No Useful Information Concerning the Appropriate Forward-Looking UNE Cost of Capital</u>

Q. IN A RELATED ARGUMENT, DR. AVERA CLAIMS THAT "THE FCC HAS AFFIRMED THAT THE 11.25 PERCENT RATE OF RETURN AUTHORIZED AT THE FEDERAL LEVEL REMAINS THE STARTING POINT FOR A TELRIC-BASED COST OF CAPITAL" AND THAT THIS

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[25] Avera Direct at 8, A.7.

[26] Slide 27 of Cingular/AT&T Wireless presentation "New Leadership for the U.S. Wireless Industry." This slide presentation is available on SBC's Web site at http://www.sbc.com/Investor/Financial/Earning_Info/docs/slide_c.pdf.

"FACT," IN CONJUNCTION WITH OTHER FCC STATEMENTS IN THE *TRIENNIAL REVIEW ORDER*, DEMONSTRATES THAT YOUR COST OF CAPITAL RECOMMENDATION IS TOO LOW.[27] IS THIS CLAIM ACCURATE?

A. No. Verizon and other ILECs sought such a finding in the Triennial Review, but the FCC did not make any such finding.[28]

In making this claim, Dr. Avera also ignores the outdated vintage of the FCC's authorized rate of return and the FCC's own statements concerning the propriety of its 11.25% cost of capital as an estimate of forward-looking capital costs. The FCC originally adopted the 11.25% cost of capital for interstate services in a 1990 represcription order.[29] In 1995, the FCC adopted a benchmark for determining whether and when to reconsider the authorized rate of return. That benchmark was immediately triggered, leading the FCC to seek comment in February 1996 about the advisability of initiating a review of the 11.25% rate of return.[30] In an order that shortly followed the FCC's adoption of the TELRIC methodology, the FCC found:

> The sustained low yields of the U.S. treasury securities strongly suggest that the current [11.25%] prescribed rate of return is much

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[27] Avera Rebuttal at 40, A.43.

[28] *Triennial Review Order* ¶ 678.

[29] *See* Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers, *Order*, CC Docket No. 89-624, 5 FCC Rcd 7507, 7509 ¶ 13 (1990).

[30] This history is summarized in *FCC Rate of Return Notice* at ¶ 2.

> higher that the rate required to attract capital and earn a reasonable profit.[31]
>
> … It is important that our prescribed rate of return correspond to current market conditions. The recent yields on 10-year U.S. treasury securities have remained more than 150 basis points below the reference point, suggesting that the prescribed rate does not coincide with current market conditions. Therefore, we conclude that we should begin a rate-of-return prescription proceeding.[32]

Current Treasury securities rates are even lower than the rates prevailing in September 1996, the time at which the FCC determined to review the 11.25% authorized rate of return.[33] For example, the 10-year Treasury bond rate was 6.83% in September 1996, but only 4.05% as of February 13, 2004, a drop of 278 basis points.[34]

It is true that the FCC has not managed to adopt an update to its authorized rate of return, despite its stated intention of doing so. (The Commission is no doubt aware that the FCC has had other pressing matters since September 1996.) Nonetheless, it makes no sense to use an extremely stale FCC figure as a benchmark for the reasonableness of the cost of capital in this UNE cost proceeding, particularly when the FCC return was originally adopted to apply to

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[31] *Id*. at ¶ 5.

[32] *Id*. at ¶ 7.

[33] *See* the Federal Reserve Board's historical interest rate data at http://www.federalreserve.gov/releases/h15/data/m/tcm10y.txt.

[34] Federal Reserve Board Statistical Release H.15, released February 17, 2004. Current and prior weeks' statistical releases are available at http://www.federalreserve.gov/releases/h15.

an entirely different market segment (interstate services of local exchange carriers).

E. The Level of the UNE Cost of Capital Adopted in the *Virginia Arbitration Order* Does Not Provide a Useful Indicator of the Correct Forward-Looking Cost of Capital Today

Q. DR. AVERA ALSO CRITICIZES YOU FOR FAILING TO "CONSIDER… THE CONCLUSIONS OF THE [WIRELINE COMPETITION] BUREAU"[35] IN ITS *VIRGINIA ARBITRATION ORDER*. IS HE CORRECT?

A. Dr. Avera is correct that I did not consider the *Virginia Arbitration Order* (which was released on August 29, 2003, in preparing the cost of capital estimate I presented in my direct testimony (the testimony to which he refers in his rebuttal), which I submitted on May 6, 2003, nearly four months prior to the issuance of the *Virginia Arbitration Order.* I disagree profoundly, however, with Dr. Avera's characterization of the *Virginia Arbitration Order* and with his claims as to which of our recommendations is more consistent with that *Order.*

The Commission should not look to the level of the adopted cost of capital in the *Virginia Arbitration Order* to evaluate the reasonableness of the parties' recommendations in this proceeding. As I explained in my response to Staff on January 20, 2003, the *Virginia Arbitration Order* reflects the outcome of a "baseball-style" arbitration in which the Wireline Competition Bureau considered

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[35] Avera Rebuttal at 50, A.54.

only the issues raised and the evidence presented by the parties in that arbitration.[36] The issues and their presentation were *not* identical to the record in this proceeding. Furthermore, the adopted cost of capital reflected a somewhat stale record and was based on data from June 2000 – three years prior to the date the FCC issued the *Virginia Arbitration Order*. The Bureau stated that its adopted cost of capital reflected the vintage of the data available and specifically observed that the decline in interest rates would have had a material effect on its decision had that decision been made based on data current as of the time its *Order* was released.[37] Thus, it is wholly inappropriate for Dr. Avera to compare my recommendation (or his own) to the specific values that the Bureau adopted in the *Virginia Arbitration Order* as if that comparison could validate any figure that appropriately reflects financial market conditions as of 2004.[38]

Instead, the Commission should look (albeit with caution, taking into account the baseball-style arbitration rules) to the discussion of methodology in the *Virginia Arbitration Order* for guidance in evaluating the parties' cost of capital recommendations. In Section III of my rebuttal testimony, I reference the methodological discussion in the *Virginia Arbitration Order* in those instances in which the *Order* sheds light on the methodological controversies in this proceeding.

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[36] *Virginia Arbitration Order* ¶ 5.

[37] *Id*. n. 203.

[38] *See, e.g.*, Avera Rebuttal at 49, A.52.

My January 20, 2004 rebuttal to Staff contained a discussion of my understanding of the *Triennial Review* and *Virginia Arbitration Orders*, with particular emphasis on the cost of equity. In that rebuttal testimony, I also presented the results of the analysis that I was submitting on that same date in the ongoing Michigan UNE cost proceeding. As shown in Attachment TLM-4 to my rebuttal to Staff, the outcome of my Michigan analysis is a weighted-average cost of capital of 7.04%, fully 50 basis points *below* the weighted-average cost of capital that I recommended in my May 6, 2003 direct testimony in this proceeding. Therefore, I can say without hesitation that my original recommended cost of capital is ample to accommodate the FCC's "clarification" of its cost of capital standard in the *Triennial Review Order*.

F. <u>Dr. Avera's Long-Term Debt Yield Benchmark Does Not Invalidate My Recommended Cost of Equity</u>

Q. AT SEVERAL POINTS IN HIS REBUTTAL TESTIMONY, DR. AVERA CITES THE RELATIVELY SMALL SPREAD BETWEEN SOME MEASURE OF LONG-TERM DEBT YIELDS AND YOUR RECOMMENDED COST OF EQUITY (OR SOME OF THE COMPONENTS THAT ENTER INTO YOUR ESTIMATED COST OF EQUITY) AS EVIDENCE THAT YOUR RECOMMENDATION IS TOO LOW.[39] IS HIS POINT WELL TAKEN?

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[39] *See, e.g.,* Avera Rebuttal at 47, A.51.

A. No, not as he has presented the argument. Dr. Avera has a preconceived notion of the extent to which the cost of equity should exceed the yield on long-term debt (this is one form of the "equity risk premium" that I will discuss further in Section III of my surrebuttal testimony). He attempts to use this preconception to invalidate any forecast of equity returns that falls below what he considers to be a reasonable "spread" between the return on equity and the return on long-term debt. The problem with this approach is that equity returns (particularly "realized" or "earned" equity returns) do *not* maintain a tight, fixed relationship to realized returns on long-term debt, or any other form of debt. In fact, there are periods of time in which earned equity returns fall *below* earned returns on debt, although it is true that equities have had higher returns than debt *on average* over a long historical period.

This historical average result does *not* justify excluding from the cost of capital estimation all information that implies a return on equity that is close to, or below, debt yields. Harvard finance professor John Y. Campbell addressed precisely this point in an advisory presentation to the Social Security Advisory Board, warning that estimates of equity returns used in policy evaluations:

> should include an alternative in which equities underperform Treasury bills. Even if the probability of underperformance is small over a long holding period, it cannot be zero or the stock market would be offering an arbitrage opportunity or "free lunch." Equally important, the bad states of the world in which

> underperformance occurs are heavily weighted by risk-averse investors.[40]

Dr. Avera's attempt to "benchmark" and then exclude all inputs to the cost of equity estimate that produce only a modest spread over long-term *corporate* bond yields (which already include a "spread" over Treasury yields) flies in the face of this policy advice.

G. <u>Staff's CAPM Cost of Equity Estimate Is Not an Appropriate Benchmark for the UNE Cost of Equity</u>

Q. DR. AVERA CITES STAFF'S CAPM ESTIMATE OF THE COST OF EQUITY AS EVIDENCE THAT YOUR PROPOSED COST OF EQUITY IS TOO LOW.[41] DOES THIS COMPARISON PROVIDE AN APPROPRIATE REASON FOR THE COMMISSION TO REJECT YOUR RECOMMENDATION?

A. No. My January 20, 2004 testimony provided an extensive critique of the approach that Staff used to generate this CAPM estimate. For all of the reasons I presented in that testimony, Staff's CAPM estimate is significantly overstated and therefore does not provide an appropriate benchmark for my cost of equity estimate.

Similarly, I do not believe that Dr. Avera's own "expectational" CAPM estimate, which he also cites as rebuttal to my cost of equity figure, provides an

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[40] John Y. Campbell, "Forecasting U.S. Equity Returns in the 21st Century," July 2001, at 6. Professor Campbell presented this note to the Social Security Advisory Board in Washington, D.C. in May 2001.

[41] Avera Rebuttal at 49, A.52.

appropriate benchmark. I will discuss the infirmities of Dr. Avera's methodology in the following section of my surrebuttal testimony.

III. THE METHODOLOGIES THAT I USED TO ESTIMATE THE UNE COST OF CAPITAL ARE SUPERIOR TO THOSE ON WHICH DR. AVERA RELIES, AND PRODUCE A COST OF CAPITAL ESTIMATE THAT IS MORE IN LINE WITH RECENT FCC GUIDANCE.

Q. IN ADDITION TO THE MORE GENERAL CRITICISMS THAT YOU HAVE ALREADY ADDRESSED, DR. AVERA ALSO MAKES SEVERAL SPECIFIC CRITICISMS OF THE METHODOLOGY THAT YOU USED TO ESTIMATE THE WEIGHTED-AVERAGE COST OF CAPITAL. SHOULD THE COMMISSION BE CONCERNED ABOUT ANY OF DR. AVERA'S CRITICISMS?

A. No. Dr. Avera's methodological critique of my testimony generally either mischaracterizes the basis for my recommendations or is insubstantial and invalid.

Q. HOW DOES DR. AVERA MISCHARACTERIZE YOUR TESTIMONY?

A. Dr. Avera mischaracterizes my testimony in several respects. For example, Dr. Avera criticizes my "update" of his original 1998-1999 cost of capital study as producing unrealistic results.[42] He must be aware that I do not endorse the methodology underlying the "update"—which is his own original study methodology. In fact, I agree that some of the results of the "update" are unreasonably low *and others are unreasonably high* because Dr. Avera's original

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[42] *See*, *e.g*., Avera Rebuttal at 34, A.40.

study methodology is seriously flawed. I simply use the update to show that even Dr. Avera's analytical approach would produce a much lower cost of capital if it were applied to more up-to-date data. *I do not recommend that the Commission rely on my "strict update" of Dr. Avera's study as the basis for establishing any aspect of the forward-looking cost of capital for UNEs.*

I address other examples of his mischaracterization of my testimony (such as his claims about my use of "book" capital structures) in my discussion below of specific methodological issues raised in Dr. Avera's rebuttal testimony.

Q. WHICH SPECIFIC METHODOLOGICAL ISSUES DO YOU ADDRESS BELOW?

A. I address each of the following issues: (1) the correct forward-looking equity risk premium to use in the CAPM cost of equity estimate; (2) the appropriateness of using a three-stage DCF calculation; (3) the proper term, or maturity, of long-term debt to assume in a UNE cost study; (4) the appropriateness of including short-term debt (with a maturity of under one year) in the capital structure; and (5) the best measure of the forward-looking "target" capital structure. In each case, I show that my recommendation produces a superior result to the result that Dr. Avera obtains using his various methodologies.

My silence with respect to other, more minor issues raised in Dr. Avera's rebuttal does not represent agreement with his claims. Instead, I have chosen to focus on the issues that have the greatest potential impact on the UNE cost of capital.

A. <u>The CAPM Methodology I Have Employed Incorporates the Best Available Information Concerning the Forward-Looking Equity Risk Premium; Dr. Avera's CAPM Methodology Does Not.</u>

Q. DR. AVERA CRITICIZES MOST OF THE EQUITY RISK PREMIUM ESTIMATES THAT YOU USE TO CALCULATE THE CAPM-BASED COST OF EQUITY BECAUSE THEY ALLEGEDLY ARE NOT SUFFICIENTLY FORWARD-LOOKING.[43] DO YOU AGREE?

A. No. It is bizarre that Dr. Avera would criticize my equity risk premium estimates as backward-looking given the equity risk premia he uses in his analysis. I gave a 50% weighting to the Ibbotson Associates 1926-2002 long-run historical equity risk premium. This is effectively the same weight that Dr. Avera gave to the Ibbotson historical premium in his original cost of equity study (he presents two CAPM estimates, one of which is based on the Ibbotson data, and gives each equal weight in arriving at his recommendation.) The primary difference is that my Ibbotson risk premium estimate contained the information available in the most recent Ibbotson Associates publication, the *2003 Yearbook*, whereas Dr. Avera's testimony relied on the Ibbotson risk premium from the *1999 Yearbook*, containing data from 1926-1998.[44] Therefore, even my "historical risk premium" is more forward-looking than is the one that Dr. Avera used.

The three academic studies of the equity risk premium that I cited in my May 6, 2003 testimony do, in fact, use data from various historical periods to

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[43] Avera Rebuttal at 45, A.49.

[44] Avera Direct, Schedule WEA-1 at 18.

develop estimates of the *forward-looking* equity risk premium. But that is also true of Dr. Avera's so-called "expectational" equity risk premium, which is based on an article published by Harris and Marston in *1992* using data for the period 1982 through May 1991.[45] Dr. Avera uses this historical information to develop what he chooses to call an "expectational" risk premium by inserting "current" (actually March 1999) interest rates into the relationship that Harris and Marston estimated between the realized equity risk premium (*i.e.*, the difference between realized returns on common equity and realized returns on government bonds) and interest rates that prevailed during the 1980s.[46] My May 6, 2003 testimony presented a host of methodological concerns about Dr. Avera's extrapolation from the Harris and Marston 1992 result; I refer the Commission to that discussion for more details.

Q. DOES THE RECORD OF THIS PROCEEDING CONTAIN ANY EQUITY RISK PREMIUM ESTIMATES THAT DO NOT RELY, AT LEAST IN PART, ON HISTORICAL DATA?

A. Yes. There are two such estimates: the one that I presented based on the 10-year forecasted return for the S&P 500 as published in the Philadelphia Federal Reserve Bank's *Survey of Professional Forecasters* and another (actually two slight variants, by Mr. McNally for Staff and Dr. Avera for SBC) based on an

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[45] Avera Direct, Schedule WEA -1 at 17.

[46] *Id*.

analysis using a "snapshot" constant-growth DCF for a large group of S&P 500 firms to develop a forward-looking estimate of investors' required return for the market as a whole.

As I pointed out in my January 20, 2004 response to Mr. McNally, his analysis (and Dr. Avera's similar analysis, shown in Schedule WEA-3 to his direct testimony) is inconsistent with the *Virginia Arbitration Order*, in which the Wireline Competition Bureau concluded "Verizon's use of the constant growth DCF model to estimate the cost of equity capital for its S&P proxy group stretches the reasonable limit of its use."[47]

Moreover, any "snapshot" estimate of required returns that depends almost entirely on analysts' five-year growth rate forecasts to project long-term growth is fraught with peril. The abstract to a recent article in the *Journal of Finance* (the premier academic journal on financial economics) states:

> While some firms have grown at high rates historically, they are relatively rare instances. There is no persistence in long-term earnings growth beyond chance, and there is low predictability even with a wide variety of predictor variables. *Specifically, IBES growth forecasts are overly optimistic and add little predictive power*.[48]

The growth rates on which Dr. Avera and Staff have relied to develop their equity risk premium estimates are precisely the kind of "overly optimistic" forecasts of long-term growth to which the authors of this recent, well-respected

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[47] *Virginia Arbitration Order*, ¶ 73.

[48] Louis K. C. Chan, Jason Karceski, and Josef Lakonishok, April 2003, "The Level and Persistence of Growth Rates," *Journal of Finance* **58(2)**, 643 (emphasis supplied).

study refer. Therefore, I urge the Commission to give no weight to the equity risk premium estimates generated by such analyses.

Q. DR. AVERA DISPARAGES YOUR USE OF THE *SURVEY OF PROFESSIONAL FORECASTERS* AS BEING SIMPLY "A SINGLE SURVEY" THAT PRODUCES UNREASONABLE RESULTS.[49] DO YOU AGREE?

A. Obviously not. This *Survey* provides a particularly useful public forecast of the average annual S&P 500 return over the next 10 years. The Philadelphia Federal Reserve Bank is a reputable government source and makes its *Survey* results available, without charge, over the Internet. The Bank's Web site describes the *Survey* as follows:

> The *Survey of Professional Forecasters* is the oldest quarterly survey of macroeconomic forecasts in the United States. The survey began in 1968 and was conducted by the American Statistical Association and the National Bureau of Economic Research. The Federal Reserve Bank of Philadelphia took over the survey in 1990.[50]

Although the *Survey* is published quarterly, long-term (10-year) forecasts appear only in the first quarterly release each year. Therefore, the most recent 10-year forecast for the average annual S&P 500 return is still the first-quarter 2003 *Survey*, which was released on February 24, 2003.[51] 37 professional forecasters

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[49] Avera Rebuttal at 47, A.51.

[50] http://www.phil.frb.org/econ/spf/

[51] The next 10-year forecasts are scheduled to be released on February 23, 2004.

participated in that *Survey*; 28 of them provided a 10-year forecast of the S&P 500 return. The average (mean) annual forecasted return on the S&P 500 stocks was 7.46%.[52]

Calling this estimate the result of a "single survey" understates its broad support. *Survey* participants' specific responses remain anonymous; however, many respondents consent to be identified publicly. The first quarter 2003 *Survey* identified a number of distinguished participants from government (*e.g.*, Fannie Mae), academia (*e.g.*, University of Michigan and Georgia State University) and private firms and organizations (*e.g.*, Moody's, Standard & Poor's, Merrill Lynch, Goldman Sachs, National Association of Home Builders) that have a strong interest in economic forecasting. In this sense, the *Survey* is in many ways a consensus forecast. The broad scope of participation and the ready public availability of its results (as compared to private forecasts such as the *Global Insight* forecast that are not typically available in libraries and are extremely expensive to obtain) mean that this forecast is particularly helpful in illuminating investors' expectations of future returns.

Q. DR. AVERA ASSERTS THAT THE THREE ACADEMIC STUDIES ON WHICH YOU RELY IN PART ARE INVALID BECAUSE THEY

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[52] A copy of this forecast was provided as part of Attachment TLM-2 to my May 6, 2003 testimony. Detail concerning the results for the "Series: Stock Returns (S&P 500)" appears on the final page of the document. The median forecast was slightly higher, at 8%. The median in this case represents the simple average of the two "middle" forecasts among the 28 forecasters participating, so that half of the other forecasters estimated annual returns equal to or higher than 8% and the remainder estimated returns equal to or less than 8%.

CONSIDER A HISTORICAL PERIOD SHORTER THAN THE FULL DATE RANGE INCLUDED IN THE IBBOTSON ASSOCIATES STUDY.[53] **PLEASE RESPOND.**

A. Once again, I agree that each of the three academic studies uses data for a particular period of time (in that sense, a "historical" period) to develop forward-looking estimates of the equity risk premium. However, they do *not* use historical "realized returns" at all, much less attempt to estimate the equity risk premium based on some subset of the Ibbotson data.

Instead, all three of the studies attempt to determine what is called the "*ex ante*" (or expected) equity risk premium, each using a slightly different methodology. The abstract for the Claus and Thomas article illustrates this point, stating: "Rather than examine historic experience, we estimate the equity premium from the discount rate that equates market valuations with *prevailing expectations of future flows*."[54] Dr. Avera's contention that these articles develop a backward-looking or historical risk premium is simply false.

Furthermore, there is a growing body of academic finance literature identifying reasons that the equity risk premium would have decreased over

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[53] Avera Rebuttal at 46, A.50.

[54] James Claus and Jacob Thomas, 2001, "Equity Premia as Low as Three Percent? Evidence from Analysts' Earnings Forecasts for Domestic and International Stock Markets," *Journal of Finance* **56(5)**, 1629.

time.[55] Even Harris and Marston, the authors of the "expectational" risk premium study on which Dr. Avera relies, agree that:

> Compounding the difficulty of using historical returns [a reference to the methodology used by Ibbotson Associates] is the well noted fact that standard models of consumer choice would predict much lower spreads between equity and debt returns than have occurred in US markets—the so called equity risk premium puzzle (see Welch, 2000 and Siegel and Thaler, 1997). In addition, theory calls for a forward-looking risk premium that could well change over time.[56]

Given his own reliance on a study using less than the full Ibbotson Associates historical data range, I cannot understand the basis for Dr. Avera's criticism of the three academic studies that I cite.

B. The Three-Stage DCF Methodology I Have Employed Has a Sound Basis; Both Dr. Avera's Constant-Growth DCF And His "Non-Constant" DCF Are Inconsistent with the *Virginia Arbitration Order* and Lack a Sound Theoretical Foundation.

Q. IS IT TRUE, AS DR. AVERA INDICATES,[57] THAT THE COST OF CAPITAL TESTIMONY THAT YOU HAVE SUBMITTED IN OTHER JURISDICTIONS SUBSEQUENT TO THE RELEASE OF THE *VIRGINIA ARBITRATION ORDER* RELEGATES THE THREE-STAGE DCF TO A REASONABLENESS CHECK ON YOUR CAPM RESULTS?

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[55] Claus and Thomas, *id*., summarize this literature at pages 1632-1633 of their article.

[56] Robert S. Harris and Felicia C. Marston, 2001, "The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts," *Journal of Applied Finance* **11(1)**, 6. A copy of this article appears in Staff Exhibit MGM 1.04.

[57] Avera Rebuttal at 41, A.45.

A. Yes. In the *Virginia Arbitration Order*, the Wireline Competition Bureau expressed concern about *all* forms of the DCF model, at least as presented in that proceeding, and indicated a strong preference for the CAPM.[58] Subsequent to the issuance of that *Order*, therefore, I have given precedence to the CAPM and relied on the three-stage DCF only as a reasonableness check on my CAPM results.

Q. DOES THIS MEAN THAT YOU AGREE THE WIRELINE COMPETITION BUREAU SPECIFICALLY REJECTED THE THREE-STAGE DCF ANALYSIS YOU PRESENTED IN YOUR MAY 6, 2003 TESTIMONY IN THIS PROCEEDING?

A. No. As I have stated in other jurisdictions, the Wireline Competition Bureau's concerns about the three-stage DCF were, in large part, specific to the support provided for the particular three-stage DCF filed in the Virginia Arbitration proceeding by another AT&T/MCI witness,[59] as well as concerns about apparent inconsistencies in the results of that particular model when calculated for different proxy groups (ILECs, the S&P 500, and electric and gas utilities).[60] I have documented the specific basis for my first and third stage growth estimates, and I have cited to Ibbotson Associates as authority for the "regression toward the

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[58] *Virginia Arbitration Order* ¶ 73.

[59] *Id.* ¶ 75.

[60] *Id.* ¶ 75.

mean" assumption that forms the basis for my second stage growth assumptions. Furthermore, there is no evidence that the three-stage DCF model I have presented produces anomalous results for any group of comparison firms. I continue to believe that my three-stage DCF analysis provides valuable information for the Commission's consideration in establishing a forward-looking cost of equity, whether the result of that analysis is factored directly in the estimated cost of equity or merely used as a check on the reasonableness of the CAPM result.

Q. HAS DR. AVERA TAKEN ANY STEPS TO ADJUST HIS COST OF CAPITAL METHODOLOGY, EITHER IN THIS PROCEEDING OR IN OTHER JURISDICTIONS, EXPLICITLY TO ACCOUNT FOR THE *VIRGINIA ARBITRATION ORDER*'S FINDINGS CONCERNING THE DCF MODEL?

A. Not in this proceeding and, to the best of my knowledge, not in any other jurisdiction. Dr. Avera still presents a cost of equity study that relies, in part, on the DCF methodology. As I noted above, the *Virginia Arbitration Order*'s findings about the undesirability of the DCF model were by no means limited to the three-stage DCF methodology. And, indeed, Dr. Avera continues to present as part of his primary cost of capital analysis a constant-growth DCF using data from early 1999. This is precisely the form of the DCF about which the Bureau expressed the most concern, at least in circumstances (such as those presented in Dr. Avera's testimony) in which the single growth rate assumed to last into perpetuity substantially exceeds the long-term growth rate for the economy as a whole.[61] (Ironically, Dr. Avera finds fault with Staff's constant-growth DCF because it assumes the persistence of a growth rate that Dr. Avera considers to be *too low*.[62])

Q. DOES THE "NON-CONSTANT" DCF PRESENTED IN DR. AVERA'S REBUTTAL TESTIMONY SOLVE THESE PROBLEMS?

A. No. The non-constant DCF model presented in Schedule WEA-6 departs from standard DCF methodologies, and Dr. Avera provides no citation or authority to support its use. Moreover, his model produces SBC-specific results that Dr. Avera himself considers to be unreasonable – again, because they are lower than he likes. The "non-constant" DCF result for SBC is only 6.9%.[63]

Dr. Avera applied his "non-constant" DCF model to Staff's comparison group. My rebuttal to Staff explained why certain companies in this group are not truly comparable to SBC. Significantly, three of the "non-comparable" firms (Alltel, with its high proportion of non-wireline businesses, and CenturyTel and Sprint, with far lower bond ratings than SBC) are the three firms with the highest estimated cost of equity using Dr. Avera's "non-constant" DCF. Had Dr. Avera applied his model only to the three RBOCs (without excluding SBC), he would

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[61] *Virginia Arbitration Order* ¶ 76.

[62] Avera Rebuttal at 2, A.4.

[63] *Id.* at 12, n. 14.

have obtained an average cost of equity of 10.97%,[64] a figure that is substantially lower than his own cost of equity recommendation. I do not endorse the use of this result because of the non-standard methodology employed; however, I suggest that the Commission take note of how poorly Dr. Avera's own "update" analyses support his recommendation.

C. <u>The Differences between Dr. Avera's Long-Term Debt Cost and My Own Relate Primarily to the Assumed Term of Debt; My Assumption Is More Consistent with the *Triennial Review Order*.</u>

Q. THE COST OF LONG-TERM DEBT IS YET ANOTHER AREA IN WHICH DR. AVERA CRITICIZES YOUR ANALYSIS. HOW DO YOU EXPLAIN THE DIFFERENCES BETWEEN YOUR RECOMMENDATION AND THAT OF DR. AVERA?

A. Most of the discrepancy between my long-term debt cost recommendation and that of Dr. Avera can be traced to the different maturities we assume for SBC's "long-term" debt. Dr. Avera's estimate of long-term debt cost is based on the cost of very long-term bonds (> 25 years). As I explained in my May 6, 2003 testimony, investors require a higher interest rate to hold these securities than they do to hold long-term bonds with shorter maturities, such as the ten-year bonds on which I based my recommendation.

Thus, Dr. Avera's comparison between the 99-basis-point spread over 10-year Treasury bond yields that I used to calculate the long-term debt cost and the

[64] 10.97% is the simple average of the 6.9% cost of equity for SBC and the 13% cost of equity estimates for BellSouth and Verizon, as reported in Schedule WEA-6.

189-basis-point spread reported by Moody's for November 2003 is a truly "apples-and-oranges" comparison. The Moody's spread reflects the additional premium investors require to hold longer-term debt. In fact, the current spread for 10-year industrial debt versus 10-year Treasuries is only 71 basis points,[65] which is even lower than the spread that I used to calculate my estimated cost of long-term debt.

The 10-year debt maturity that I assume is more internally consistent with other aspects of the UNE cost studies than is Dr. Avera's assumption of very long-term debt. The debt maturity that I assumed is equal to or less than the average economic life for the assets being "financed" in the UNE cost studies at issue, whereas the very long maturity assumed in Dr. Avera's analysis exceeds the economic life of all but a handful of the assets included in SBC's study.

Q. IS THERE ANY OTHER INFORMATION THAT INDICATES YOUR LONG-TERM DEBT COST IS A BETTER ESTIMATE THAN DR. AVERA'S ESTIMATE?

A. Yes. Dr. Avera tries to manipulate the Moody's spread data to corroborate his proposed 7.18% cost of debt,[66] but the actual average corporate bond yield that

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[65] This is the spread reported by BondsOnline on February 19, 2003, and available at http://www.bondsonline.com/asp/corp/spreadbank.html.

[66] Avera Rebuttal at 61, A.62.

Moody's reported for the same period was only 6.18%, according to Dr. Avera's own testimony.[67]

Also, the current weighted-average yield-to-maturity for *all* of SBC's publicly traded debt is much lower still, only 4.47%.[68] This is a particularly significant indicator because the *Virginia Arbitration Order* indicated a preference for a forward-looking debt cost calculation specific to companies in the relevant industry, rather than one that is merely derived from generic yields for all corporate bonds of a particular rating.[69]

D. <u>Contrary to Dr. Avera's Contention, Inclusion of Short-Term Debt in the UNE Cost of Capital Is Appropriate.</u>

Q. YOUR RECOMMENDED CAPITAL STRUCTURE INCLUDES SHORT-TERM DEBT, WHICH DR. AVERA CONTENDS TO BE INAPPROPRIATE FOR A UNE COST OF CAPITAL.[70] ARE HIS ARGUMENTS AGAINST THE INCLUSION OF SHORT-TERM DEBT VALID?

A. No. As I explained in my May 6, 2003 testimony, short-term debt can play a role in long-term capitalization. SBC's own financing plans make this clear. A financial news story concerning the Cingular acquisition of AT&T Wireless included the following observation:

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[67] Avera Rebuttal at 54, n.88.

[68] *See* Attachment TLM-5 for this calculation.

[69] *Virginia Arbitration Order* ¶ 67.

[70] Avera Rebuttal at 66, A.69.

> SBC and BellSouth plan to finance the deal with a bridge loan, which is a temporary loan used until long-term financing is secured. Cingular said it was not considering an initial public offering.
>
> The Baby Bells are expected to use a mix of asset sales, *short-term debt* and bonds for the permanent financing, said Tim Compan, an analyst for National City Investment Co.[71]

What is sauce for the Cingular goose should certainly be sauce for the SBC gander. There is absolutely nothing unusual or improper about including some fraction of short-term debt (which is periodically "rolled over") as part of long-term financing.

Q. DR. AVERA ASSERTS THAT, AT A MINIMUM, ANY KIND OF SHORT-TERM FINANCING "REQUIRES INVESTORS TO CONSIDER THE COSTS OF ROLLING OVER THIS DEBT."[72] DOES THIS CONSIDERATION HAVE ANY SIGNIFICANCE FOR YOUR RECOMMENDED COST OF SHORT-TERM DEBT?

A. No. My recommended 2.84% cost of short-term debt was based on the average of then-current short-term debt costs and forecasted short-term debt costs ten years into the future; hence, I already made a provision for "rollover" costs. Current short-term debt costs are much lower than the figure I recommended. The

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[71] Jessica Hall and Sinead Carew, "Cingular Wins AT&T Wireless for $41 Bln," Reuters News Service, February 17, 2004, at http://biz.yahoo.com/rb/040217/telecoms_attwireless_8.html.

[72] Avera Rebuttal at 66, A.69.

shortest-term publicly traded debt issue listed for SBC matures April 1, 2005, and is currently trading at a yield-to-maturity of 1.44%.[73]

E. <u>My Recommended Capital Structure More Closely Matches a Forward-Looking "Target" Capital Structure than Does Dr. Avera's</u>

Q. THE FINAL MAJOR ISSUE THAT DR. AVERA RAISES IS THE OVERALL CAPITAL STRUCTURE. DO YOU AGREE WITH DR. AVERA THAT "A FORWARD-LOOKING COST OF CAPITAL INCORPORATES THE COST RATES OF NEW DEBT AND EQUITY IN PROPORTIONS CONSISTENT WITH A REASONABLE TARGET CAPITAL STRUCTURE"[74]?

A. Absolutely. My May 6, 2003 testimony cited Ibbotson Associates as indicating that, "[i]deally, a firm's target or optimal capital structure should be used in weighting the cost of equity and cost of debt."[75] That was the goal of my own analysis – *i.e.*, I attempted to estimate the "target or optimal capital structure" by averaging the then-current "market" and book capitalization of the firms in my study.

Dr. Avera appears not to have seen that portion of my testimony because his rebuttal testimony focuses repeatedly on the allegation that I have somehow

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[73] *See* Attachment TLM-5.

[74] Avera Rebuttal at 3, A.5, quoting (as "correctly observed") McNally Direct at 2.

[75] Ibbotson Associates, *SBBI Valuation Edition: 2003 Yearbook*, at 14. Dr. Avera claims that Ibbotson Associates recommends a market-value capitalization (Avera Rebuttal at 64, A.66), but the *SBBI 2003 Yearbook* makes clear that this is a second choice, in the absence of suitable information about target or optimal capitalization. *Id*.

improperly relied on *book* capitalization, which he asserts to be a violation of the *Triennial Review Order*.[76] (The material he references in the passage I have just cited actually refers to embedded costs generally and does not in any way address the specific use of book capital structure as one input for estimating a forward-looking *target* capital structure.)

Q. DOES DR. AVERA ACTUALLY DEVELOP A "TARGET" CAPITAL STRUCTURE?

A. No. His approving citation to Mr. McNally's testimony is the only context in which Dr. Avera relies on the concept of a target capital structure. In his actual analysis, Dr. Avera bases his "forecast" of investors' expectations on a snapshot of the market capitalization of SBC and other RBOCs as of year-end 1998. That is truly a "backward-looking" estimate of capital structure, as the market capitalization fluctuates dramatically with changes in stock prices.

Q. DR. AVERA CONTENDS THAT THE ACADEMIC STUDIES YOU CITE DO NOT VALIDATE THE USE OF BOOK VALUES AS AN INPUT TO CAPITAL STRUCTURE DETERMINATIONS.[77] IS HE CORRECT?

A. No. Dr. Avera is correct that the articles I reference in support of my target capital structure are primarily concerned with predicting stock returns, but he is wrong in suggesting that this focus makes the articles irrelevant to my point.

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[76] Avera Rebuttal at 65, A.67.

[77] *Id*. at 63-64, A.66.

Insofar as investors' expectations of stock returns resemble reality, variables that predict stock returns should also reveal something about investors' expectations. The articles I reference establish that firms with high book-to-market ratios are expected to yield low stock returns. Thus, rational investors will expect the stocks with high book-to-market ratios to yield low stock returns – *i.e.*, rational investors will expect the market capital structure of a firm to converge towards the book capital structure. In other words, investors view the book capital structure as part of the long-run or "target" capital structure. This provides theoretical motivation for my 50/50 market/book weighting.

Q. ARE YOU AWARE OF ANY INDEPENDENT EVIDENCE CORROBORATING THE REASONABLENESS OF THE TARGET CAPITAL STRUCTURE YOU ESTIMATE?

A. Yes. I have compared my proposed capital structure to public information about other carriers' target capital structures. In an ongoing Florida collocation proceeding, both Sprint and BellSouth provided specific figures in response to AT&T requests regarding their target capitalization. Sprint indicated that its target capital structure is 60% equity and 40% debt (while denying its applicability to the cost of capital determination).[78] BellSouth placed its target

[78] Sprint Response to AT&T's Second Interrogatories, No. 13, in Florida Public Service Commission Docket Nos. 981834-TP and 990321-TP. A copy of this response is included in Attachment TLM-6.

structure at between 65% equity and 35% debt and 55% equity and 45% debt.[79] The mid-point of BellSouth's range is a capital structure of 60% equity and 40% debt. My proposed target capital structure contains over 66% equity, which is highly consistent with the publicly stated target capital structures of these major incumbent local exchange carriers and corroborates the reasonableness of my approach.

Q. DR. AVERA ALSO ASSERTS THAT THE *VIRGINIA ARBITRATION ORDER* REJECTED YOUR APPROACH TO ESTIMATING A FORWARD-LOOKING CAPITAL STRUCTURE.[80] IS HE CORRECT?

A. Only in part. The rationale that I described in the preceding answers for using an estimate of forward-looking target capital structure was not considered by the Bureau in the *Virginia Arbitration Order*. Instead, based on the record before the Bureau in that proceeding, the *Virginia Arbitration Order* adopted a market-value approach to estimating the forward-looking capital structure.[81] I have not taken that approach because I believe there is evidence that current market capitalization does not provide the best guide to SBC's forward-looking target capital structure.

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[79] BellSouth Response to AT&T's Sixth Interrogatories, No. 48, in Florida Public Service Commission Docket Nos. 981834-TP and 990321-TP. A copy of this response is included in Attachment TLM-6.

[80] Avera Rebuttal at 65, A.68.

[81] *Virginia Arbitration Order*, ¶ 102.

Q. HAS SBC TAKEN A POSITION ON FORWARD-LOOKING CAPITAL STRUCTURE IN OTHER PROCEEDINGS OF WHICH YOU ARE AWARE?

A. Yes. In the ongoing Michigan mass-market switching impairment proceeding, SBC witness John P. Lube presented a cost analysis of the "crossover" point at which an efficient CLEC would choose to serve a customer using DS-1 level facilities, rather than multiple analog voice-grade loops. One of the inputs to Mr. Lube's cost analysis (which is in the public record) is the cost of capital for the efficient CLEC. The assumed capital structure in Mr. Lube's cost analysis contains only 55% equity and 45% debt.[82] This assumption is highly inconsistent with Dr. Avera's claimed forward-looking capital structure and is even more conservative (*i.e.*, has a lower percentage of comparatively expensive common equity) than my own recommended target capital structure.

Q. DOES THAT CONCLUDE YOUR SURREBUTTAL TESTIMONY AT THIS TIME?

A. Yes, it does.

[82] *See* Attachment TLM-7, page 2 of 2.